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09/747,286	12/21/2000	Martin Dirk Skirha	DP-301966	9305

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EXAMINER

LEE, EDMUND H

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,286

Applicant(s)

SKIRHA ET AL.

Examiner

EDMUND H. LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003 and 17 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-18 and 23-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-18 and 23-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/10/03 has been entered.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 12, 15, 16, 23, 24, 26,33,34,36,and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 4-126222. JP 4-126222 teaches the claimed process as evident by the translated abstract and figs 1-6. As a note, the linear heating member of JP 4-126222 contacts the skin material of JP 4-126222 after the start of vacuum-forming the skin.

4. Claims 12, 13,15,16,17,18,23,24,25,26,28, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by anticipated by Chadwick (USPN 5256354). Chadwick teaches the claimed process as evident by col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7.

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 13, 14, 17, 18, 28, 29, 30, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 4-126222 in view of JP 2000-272459. The above teachings of JP 4-126222 are incorporated hereinafter. JP 4-126222 also teaches using a device that includes a vacuum-forming tool (figs 1-6); disposing the panel cover in a vacuum-forming tool (figs 1-6); and contacting the panel cover with the blade when the panel cover is deformable (figs 1-6)—as a note, the skin material/panel cover of JP 4-126222 is heated thus making it deformable. JP 4-126222 does not teach the limitations of claim 13; using a female vacuum-forming tool; using a at least one scoring member disposed upon a cylinder which is actuated by an adjustment system; using an adjustment system that is pneumatic and is controlled by an operator; advancing a contact edge of the at least one scoring device into the inner surface of the panel cover a predetermined distance toward the outer surface, wherein the panel cover is disposed in a mold device; controlling the predetermined distance by limiting the advancement of the at least one scoring device into the panel cover; and using a scoring blade which forms a part of the a movable cylinder, the blade being extendable and retractable relative to the cylinder, the cylinder and blade being oriented above the body. JP 2000-272459 teaches molding an airbag door in a panel cover by forming a score on the

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inner surface of the panel cover with a scoring member disposed on a cylinder which is actuated by a pneumatic adjustment system (figs 1-7); advancing a contact edge of the scoring device into the panel cover a predetermined distance toward the outer surface (figs 1-7); controlling the predetermined distance of the scoring device into the panel cover (figs 1-7); and using a scoring blade that forms a part of a movable cylinder (figs 1-7). JP 4-126222 and JP 2000-272459 are combinable because they are analogous with respect to forming scores on an inner surface of a panel cover in order to form an air bag door. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the scoring device of JP 4-126222 with the above teachings of JP 2000-272459 in order to limit exposure of the scoring blade to unintentional wear and tear by enabling the blade to be retracted while still scoring only the inner surface. In regard to using a female vacuum-forming tool, such is a mere obvious matter of choice dependent on mold equipment availability and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, female vacuum-forming tools are well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a female vacuum-forming tool in the process of JP 4-126222 in order to reduce damage to the upper surface of JP 4-126222. In regard to using an adjustment system that is controlled by an operator, it is well-known in the molding art to use an operator as a controller. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an operator to control the adjustment system of JP 4-126222 (modified) in order to reduce error and

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molding complexity. In regard to controlling the predetermined distance by limiting the advancement of the at least one scoring device into the panel cover, it is well-known in the molding art to limit an extension or retraction of a movable part by stoppers or other limiting means. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to limit the advancement of the scoring device of JP 4-126222 (modified) in order to ensure the blade of JP 4-126222 does not contact the outer surface of the panel of JP 4-126222. In regard to using a movable cylinder, the blade being extendable and retractable relative to the cylinder, wherein the cylinder and blade being oriented above the body. Such limitations are a mere obvious matter of choice dependent on mold equipment availability and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, such mold limitations are well-known in the molding art in order for precise movement and better control. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the above mold limitations into the scoring device of JP 4-126222 (modified) in order to achieve the above results.

7. Claims 25, 27, 35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 4-126222. The above teachings of JP 4-126222 are incorporated hereinafter. JP 4-126222 does not teach using a panel cover formed from the claimed materials; elevating the temperature of the panel cover to a temperature higher than the temperature of the formed panel cover and the panel is at or near the elevated temperature when the scoring device contacts the panel cover; forming the deployment region after vacuum-forming but prior to cooling; and forming the substrate by injection

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molding. In regard to using a panel cover formed from the claimed materials, such is a mere obvious matter of choice dependent on the desired final product and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed materials are well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any of the claimed materials as the material of the panel cover in order to form a cover having durability and good aesthetics and feel. In regard to elevating the temperature of the panel cover to a temperature higher than the temperature of the formed panel cover and the panel is at or near the elevated temperature when the scoring device contacts the panel cover, it is well-known in the molding art to score while the preform is heated in order to facilitate the scoring. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to elevate the temperature of the panel cover to the claimed temperature in order to achieve the above result. In regard to forming the deployment region after vacuum-forming but prior to cooling, it is well-known in the molding art to cut or score a preform after it has been formed in order to precisely cut or score at the desired location. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the deployment region of JP 4-126222 after vacuum-forming but prior to cooling in order to achieve the above result. In regard to forming the substrate by injection molding, such is well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made

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to form the substrate of JP 4-126222 by injection molding in order to reduce cycle time without sacrificing quality.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick (USPN 5256354) as applied to claim 12 above and further in view of JP 4-151345. The above teachings of Chadwick are incorporated hereinafter. Chadwick does not teach using a female vacuum-forming mold. JP 4-151345 teaches forming an air bag door skin by vacuum-forming the skin material into a predetermined shape (abstract; figs 1-12); and forming the skin into a concaved shape (abstract; figs 1-12). JP 4-151345 also teaches the equivalence of vacuum-forming and powder slush molding to shape the skin (abstract). Chadwick and JP 4-151345 are combinable because they are analogous with respect to forming an air bag door. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vacuum form the panel cover of Chadwick as taught by JP 4-151345 instead of powder slush molding since vacuum-forming and powder slush molding are equivalents.

9. Claims 27,31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick (USPN 5256354). The above teachings of Chadwick are incorporated hereinafter. Chadwick does teach contacting the panel cover when the panel cover is at a temperature wherein a portion of the panel cover is deformable (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7). However, Chadwick does not teach elevating the temperature of the panel cover to a temperature higher than the

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temperature of the formed panel cover and the panel is at or near the elevated temperature when the scoring device contacts the panel cover; and using a movable cylinder, the blade being extendable and retractable relative to the cylinder, wherein the cylinder and blade being oriented above the body. In regard to elevating the temperature of the panel cover to a temperature higher than the temperature of the formed panel cover and the panel is at or near the elevated temperature when the scoring device contacts the panel cover, it is well-known in the molding art to score while the preform is heated in order to facilitate the scoring. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to elevate the temperature of the panel cover to the claimed temperature in order to achieve the above result. In regard to using a movable cylinder, the blade being extendable and retractable relative to the cylinder, wherein the cylinder and blade being oriented above the body. Such limitations are a mere obvious matter of choice dependent on mold equipment availability and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, such mold limitations are well-known in the molding art in order for precise movement and better control. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the above mold limitations into the scoring device of Chadwick in order to achieve the above results.

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick (USPN 5256354) as applied to claim 28 above and further in view of JP 4-151345. The above teachings of Chadwick are incorporated hereinafter. Chadwick

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does not teach using a female vacuum-forming mold. JP 4-151345 teaches forming an air bag door skin by vacuum-forming the skin material into a predetermined shape (abstract; figs 1-12); and forming the skin into a concaved shape (abstract; figs 1-12). JP 4-151345 also teaches the equivalence of vacuum-forming and powder slush molding to shape the skin (abstract). Chadwick and JP 4-151345 are combinable because they are analogous with respect to forming an air bag door. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vacuum form the panel cover of Chadwick as taught by JP 4-151345 instead of powder slush molding since vacuum-forming and powder slush molding are equivalents.

11. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick (USPN 5256354) in view of JP 4-151345. Chadwick teaches forming a hidden, integral passenger air bag door in a portion of an instrument panel cover (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7); forming the panel cover having an inner surface and an opposing outer surface defining a single uniform layer (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7); forming a deployment region in the inner surface of the panel cover by contacting only the inner surface with at least one scoring device after initiation of the formation of the instrument panel cover creating at least one score therein, but prior to the cooling thereof, the at least one score defining the deployment region and providing a weakened tear pattern in the inner surface wherein the deployment of an air bag cushion causes the deployment region of the panel cover to tear open along the at least one score for deployment of the air bag cushion (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7). However,

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Chadwick does not teach vacuum-forming the panel cover. JP 4-151345 teaches forming an air bag door skin by vacuum-forming the skin material into a predetermined shape (abstract; figs 1-12); and forming the skin into a concaved shape (abstract; figs 1-12). JP 4-151345 also teaches the equivalence of vacuum-forming and powder slush molding to shape the skin (abstract). Chadwick and JP 4-151345 are combinable because they are analogous with respect to forming an air bag door. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vacuum form the panel cover of Chadwick as taught by JP 4-151345 instead of powder slush molding since vacuum-forming and powder slush molding are equivalents.

12. Claim 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick (USPN 5256354) in view of JP 4-151345. In regard to claim 34, Chadwick teaches forming a hidden, integral passenger air bag door in a portion of an instrument panel cover (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7); forming the panel cover having an inner surface and an opposing outer surface defining a single uniform layer (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7); forming a deployment region in the inner surface of the panel cover by contacting only the inner surface with at least one scoring device after initiation of the formation of the instrument panel cover creating at least one score therein, but prior to the cooling thereof, the at least one score defining the deployment region and providing a weakened tear pattern in the inner surface wherein the deployment of an air bag cushion causes the deployment region of the panel cover to tear open along the at least one score for deployment of the air bag cushion, the deployment region being formed after or during

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the forming of the instrument panel but prior to the cooling thereof (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7). However, Chadwick does not teach applying a quantity of thermoplastic material to a vacuum-forming tool; and vacuum-forming the panel cover. JP 4-151345 teaches forming an air bag door skin by vacuum-forming the skin material into a predetermined shape (abstract; figs 1-12); and forming the skin into a concaved shape (abstract; figs 1-12). JP 4-151345 also teaches the equivalence of vacuum-forming and powder slush molding to shape the skin (abstract). Chadwick and JP 4-151345 are combinable because they are analogous with respect to forming an air bag door. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a quantity of thermoplastic material to a vacuum-forming tool and to vacuum form the panel cover of Chadwick as taught by JP 4-151345 instead of powder slush molding since vacuum-forming and powder slush molding are equivalents. In regard to claims 35-38, Chadwick teaches forming the deployment region after forming the panel cover but prior to cooling the panel cover (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7); applying a foam layer to the inner surface after the forming of the instrument panel cover and the deployment region (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7); applying a substrate layer to the foam layer, the substrate layer having a plurality of scores aligned with the deployment region (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7); heating a portion of the scoring device prior to scoring the inner surface (col 3, lns 1-11 and 45-50; col 4, ln 61-col 5, ln 4; and figs 1-7). Chadwick does not teach injection molding the substrate. It is well-known in the air bag art to injection mold a substrate.

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Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the substrate of Chadwick by injection molding in order to reduce cycle time without sacrificing quality.

13. Applicant's arguments with respect to claims 13-18 and 23-38 have been considered but are moot in view of the new ground(s) of rejection.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 703.305.4019. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 703.305.5493. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0661.


EDMUND H. LEE
Primary Examiner
Art Unit 1732
10/31/03

EHL